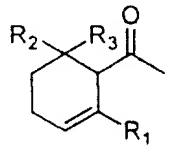
AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

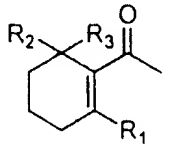
LISTING OF CLAIMS:

1. (Currently amended): A process for producing a 2-cyclohexenyl methyl ketone represented by the following formula (1b):



. . . (1b)

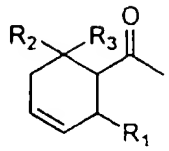
wherein R_1, R_2 and R_3 each independently represents a hydrogen atom or a methyl group and at least two of R_1, R_2 and R_3 represent a methyl group, or a 1-cyclohexenyl methyl ketone represented by the following formula (1c):



. . . (1c)

wherein R_1, R_2 and R_3 have the same meanings as defined above, or a mixture of the cyclohexenyl methyl ketones of the formulas (1b) and (1c), which comprises

isomerizing, in the presence of a catalyst, a 3-cyclohexenyl methyl ketone represented by the following formula (1a):



. . . (1a)

wherein, R_1, R_2 and R_3 have the same meanings as defined above, and

optionally distilling the mixture, wherein said catalyst is:

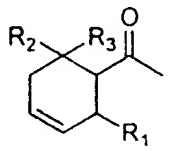
an acid catalyst; or

a basic catalyst, and wherein when said catalyst is said basic catalyst the isomerizing is conducted at a temperature of at least 100°C, wherein the basic catalyst is selected from the group consisting of potassium t-butoxide, potassium methoxide, sodium t-butoxide, sodium ethoxide, lithium t-butoxide, potassium hydroxide and sodium cyclohexylamide, and wherein the isomerizing is conducted in a solvent, and the solvent is selected from the group consisting of tetraethyleneglycol monomethyl ether, dimethyl sulfoxide, dimethylacetamide and cyclohexylamine..

2. (canceled).

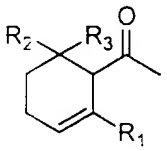
3. (canceled).

4. (Currently amended): A process of isomerizing, in the presence of a catalyst, a 3-cyclohexenyl methyl ketone represented by the following formula (1a):



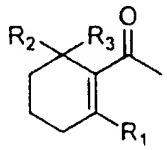
. . . (1a)

wherein R_1, R_2 and R_3 each independently represents a hydrogen atom or a methyl group and at least two of R_1, R_2 and R_3 represent a methyl group, into a 2-cyclohexenyl methyl ketone represented by the following formula (1b):



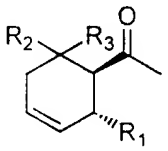
. . . (1b)

wherein R_1, R_2 and R_3 have the same meanings as defined above, or a 1-cyclohexenyl methyl ketone represented by the following formula (1c):



. . . (1c)

wherein R_1, R_2 and R_3 have the same meanings as defined above, or a mixture of the cyclohexenyl methyl ketones of the formulas (1b) and (1c) and (1a'), wherein the cyclohexenyl methyl ketone of formula (1a') is the following trans 3-cyclohexenyl methyl ketone of formula (1a'):



. . . (1a')

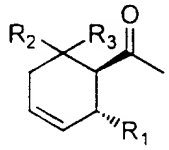
wherein R_1, R_2 and R_3 have the same meanings as defined above, wherein said catalyst is:

an acid catalyst; or

a basic catalyst, and wherein when said catalyst is said basic catalyst the isomerizing is conducted at a temperature of at least 100°C, wherein the basic catalyst is selected from the

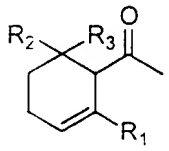
group consisting of potassium t-butoxide, potassium methoxide, sodium t-butoxide, sodium ethoxide, lithium t-butoxide, potassium hydroxide and sodium cyclohexylamide, and wherein the isomerizing is conducted in a solvent, and the solvent is selected from the group consisting of tetraethyleneglycol monomethyl ether, dimethyl sulfoxide, dimethylacetamide and cyclohexylamine.

5. (Currently amended): A process for producing a mixture consisting essentially of a trans-3-cyclohexenyl methyl ketone of formula (1a'):



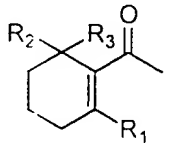
. . . (1a')

wherein R_1, R_2, and R_3 each independently represents a hydrogen atom or a methyl group and at least two of R_1, R_2 and R_3 represent a methyl group, a 2-cyclohexenyl methyl ketone of formula (1b):



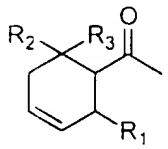
. . . (1b)

wherein R_1, R_2 and R_3 have the same meanings as defined above, and a 1-cyclohexenyl methyl ketone of formula (1c):



. . . (1c)

wherein R_1, R_2 and R_3 have the same meanings as defined above, which comprises isomerizing, in the presence of a catalyst, a 3-cyclohexenyl methyl ketone represented by the following formula (1a):



. . . (1a)

wherein, R_1, R_2 and R_3 have the same meanings are defined above, wherein said catalyst is:

an acid catalyst; or

a basic catalyst, and wherein when said catalyst is said basic catalyst the isomerizing is conducted at a temperature of at least 100°C, wherein the basic catalyst is selected from the group consisting of potassium t-butoxide, potassium methoxide, sodium t-butoxide, sodium ethoxide, lithium t-butoxide, potassium hydroxide and sodium cyclohexylamide, and wherein the isomerizing is conducted in a solvent, and the solvent is selected from the group consisting of tetraethyleneglycol monomethyl ether, dimethyl sulfoxide, dimethylacetamide and cyclohexylamine.

Claims 6-14 (Canceled).

15. (Previously presented): A process according to claim 1, wherein said catalyst is said basic catalyst and the temperature of the isomerizing is from 100°C to 190°C.